

Title (en)

Data transmission and reception using a hierarchical modulation scheme with clustered constellation points

Title (de)

Verfahren und Vorrichtung zur Übertragung von Daten unter Verwendung einer hierarchischen Modulation mit gruppierten Konstellationspunkten

Title (fr)

Procédé et dispositif pour transmettre des données en utilisant une modulation hiérarchique avec groupement des points de constellations

Publication

**EP 2757752 A1 20140723 (EN)**

Application

**EP 13152015 A 20130121**

Priority

EP 13152015 A 20130121

Abstract (en)

The present invention concerns a method for transmitting data to at least one receiver, data being decomposed in a first and a second streams. The method comprises the steps of: - identifying, from a first number of bits of the first stream, a cluster of constellation points among clusters of constellation points of an amplitude phase shift keying constellation, each cluster of constellation points being comprised in a respective circle sector of a first type, each circle sector of the first type being spaced from another circle sector of the first type by a circle sector of a second type, all circle sectors having the same central point, - identifying, from a second number of bits of the second stream, one constellation point out of the constellation points comprised in the identified cluster, - mapping the bits used for identifying to the identified constellation point of the identified cluster of constellation points, in order to form a symbol to be transmitted, - transmitting the symbol to the at least one receiver.

IPC 8 full level

**H04L 27/34** (2006.01); **H04L 27/36** (2006.01); **H04L 27/38** (2006.01)

CPC (source: EP US)

**H04L 27/3483** (2013.01 - US); **H04L 27/3488** (2013.01 - EP US); **H04L 5/0007** (2013.01 - EP US); **H04L 27/2602** (2013.01 - EP US); **H04L 27/2647** (2013.01 - EP US)

Citation (search report)

- [A] US 5581578 A 19961203 - BOT PAULUS GEORGE MARIA DE [NL]
- [A] US 2008170640 A1 20080717 - GAO WEN [US], et al

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

**EP 2757752 A1 20140723**; **EP 2757752 B1 20190313**; JP 2015536584 A 20151221; JP 5911043 B2 20160427; US 2015326421 A1 20151112; US 9467321 B2 20161011; WO 2014112254 A1 20140724

DOCDB simple family (application)

**EP 13152015 A 20130121**; JP 2013083281 W 20131205; JP 2015521721 A 20131205; US 201314651947 A 20131205